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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/798,921

03/11/2004

Yoshihisa Nagasaki

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6981

27572

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11/02/2005

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EXAMINER

OLANDER, GABRIEL D

ART UNIT

PAPER NUMBER

2879

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/798,921

Applicant(s)

NAGASAKI ET AL.

Examiner

Gabriel D. Olander

Art Unit

2879

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 March 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-9 are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 3/11/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 9 is rejected under 35 U.S.C. 102(b) as being anticipated by Deeg et al (3,830,749).

Deeg discloses a glass composite, wherein the glass composite is expressed by  $x\text{SiO}_2 + y\text{B}_2\text{O}_3 + a\text{ZnO} + b\text{Al}_2\text{O}_3 + c\text{MgO} + m\text{XO}$  where X is at least one element selected from the group consisting of Ca, Sr and Ba,  $5 < x < 70\%$ ,  $0 < y < 30\%$ ,  $x + y > 20\%$ ,  $5 < m < 60\%$ ,  $a < 40\%$ ,  $b < 10\%$ ,  $c < 10\%$ , and  $a + b + c > 10\%$  (shown in Table I).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deeg et al (3,830,749) in view of Mori et al (6,459,197).

Deeg discloses a glass composite with the limitations in claim 9 as detailed above further meeting the limitations of  $0 < y < 15\%$  &  $6.5 < m < 60\%$  (Table 1).

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Deeg does not disclose the utilization of said glass composite as part of a fluorescent lamp comprising a europium activated oxysulfide phosphor.

Mori et al discloses a fluorescent lamp comprising a europium activated oxysulfide phosphor in order to set the emission peak at 600 to 670 nm (lines 18-28, column 6).

The combination of the lamp containing a phosphor as taught by Mori with the glass composite as taught by Deeg would be obvious to one of ordinary skill in the art at the time of the invention to set emission wavelength.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Deeg et al (3,830,749) in view of Mori et al (6,459,197) further in view of Hirayama et al (3,549,554).

Deeg discloses all the limitations of claim 1 as detailed above.

Deeg does not disclose a device comprising a composition containing trivalent terbium between 1-4 mol percent.

Hirayama discloses a device comprising a composition containing trivalent terbium between 1-4 mol (lines 26-27, column 2) percent so as to stimulate emission at room temperatures (lines 16-27, column 2).

The combination of the device limited in claim one as disclosed by Mori with the terbium containing composition as disclosed by Hirayama would be obvious to one of ordinary skill in the art at the time of the invention so as to stimulate emission.

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Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Deeg et al (3,830,749) in view of Mori et al (6,459,197) further in view of Rasch et al (3,548,241).

Deeg discloses all the limitations of claim 4 as detailed above.

Deeg does not disclose a fluorescent device which has a nonlinear discharge path.

The use of a nonlinear discharge path, such as that in Rasch (fig. 2) is well known in the art so as to enable differing shaped devices and conserve space.

The combination of the device limited by claim 4 as above with the nonlinear discharge path as shown in Rasch would be obvious to one of ordinary skill in the art at the time of the invention so as to manipulate device shape.

#### ***Contact Information***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel D. Olander whose telephone number is 571-272-6011. The examiner can normally be reached on 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimesh Patel can be reached on 571-272-2457. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

6.0.

Gabriel Olander  
Patent Examiner  
Art Unit 2879



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